DEPARTMENT OF ENERGY

10 CFR Part 431

EERE-2019-BT-STD-0042

RIN 1905-AE59

Energy Conservation Program: Energy Conservation Standards for Commercial Warm Air Furnaces

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notification of proposed determination and request for comment.

SUMMARY: The Energy Policy and Conservation Act, as amended ("EPCA"), prescribes energy conservation standards for various consumer products and certain commercial and industrial equipment, including commercial warm air furnaces ("CWAFs"). EPCA also requires the U.S. Department of Energy ("DOE") to periodically review standards. In this notification of proposed determination ("NOPD"), DOE has initially determined that it lacks clear and convincing evidence that amended energy conservation standards for CWAFs would be economically justified. DOE requests comment on this proposed determination.

DATES: *Meeting*: DOE will hold a webinar on Tuesday, June 7, 2022, from 1:00 p.m. to 4:00 p.m. See section V, "Public Participation," for webinar registration information, participant instructions, and information about the capabilities available to webinar participants.

Comments: Written comments and information are requested and will be accepted on or before [**INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER***]**.**

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at *www.regulations.gov*. Follow the instructions for submitting comments. Alternatively, interested persons may submit comments, identified by docket number EERE-2019-BT-STD-0042, by any of the following methods:

1. *Federal eRulemaking Portal*: *www.regulations.gov*. Follow the instructions for submitting comments.
2. *E-mail*: to *PkgHVACFurnace2019STD0042@ee.doe.gov*. Include docket number EERE-2019-BT-STD-0042 and/or RIN 1904-AE59 in the subject line of the message.

No telefacsimiles ("faxes") will be accepted. For detailed instructions on submitting comments and additional information on this process, see section V of this document (Public Participation).

Although DOE has routinely accepted public comment submissions through a variety of mechanisms, including postal mail and hand delivery/courier, the Department has found it necessary to make temporary modifications to the comment submission process in light of the ongoing coronavirus ("COVID-19") pandemic. DOE is currently suspending receipt of public comments via postal mail and hand delivery/courier. If a commenter finds that this change poses an undue hardship, please contact Appliance Standards Program staff at (202) 586-1445 to discuss the need for alternative

arrangements. Once the COVID-19 pandemic health emergency is resolved, DOE anticipates resuming all of its regular options for public comment submission, including postal mail and hand delivery/courier.

Docket: The docket, which includes *Federal Register* notices, public meeting attendee lists and transcripts, comments, and other supporting documents/materials, is available for review at *www.regulations.gov*. All documents in the docket are listed in the *www.regulations.gov* index. However, not all documents listed in the index may be publicly available, such as information that is exempt from public disclosure.

The docket webpage can be found at *www.regulations.gov/docket?D=EERE-2019-BT-STD-0042*. The docket webpage contains instructions on how to access all documents, including public comments, in the docket. See section V, "Public Participation," for further information on how to submit comments through *www.regulations.gov*.

FOR FURTHER INFORMATION CONTACT: Ms. Julia Hegarty, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE-5B, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (240) 597-6737. Email: *ApplianceStandardsQuestions@ee.doe.gov*.

Mr. Eric Stas, U.S. Department of Energy, Office of the General Counsel, GC-33, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 586-5827. Email: *Eric.Stas@hq.doe.gov*.

For further information on how to submit a comment or review other public comments and the docket contact the Appliance and Equipment Standards Program staff at (202) 287-1445 or by email: *ApplianceStandardsQuestions@ee.doe.gov*.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Synopsis of the Proposed Determination

Title III, Part C[1] of EPCA,[2] established the Energy Conservation Program for Certain Industrial Equipment. (42 U.S.C. 6311–6317) Such equipment includes CWAFs, which are the subject of this NOPD.[3] (42 U.S.C. 6311(J))

Pursuant to EPCA, DOE is triggered to consider amending the energy efficiency standards for certain types of commercial and industrial equipment, including the equipment at issue in this document, whenever the American Society of Heating, Refrigerating, and Air Conditioning Engineers ("ASHRAE") amends the standard levels or design requirements prescribed in ASHRAE Standard 90.1, "Energy Standard for Buildings Except Low-Rise Residential Buildings," ("ASHRAE Standard 90.1"). Under a separate provision of EPCA, DOE is required to review the existing energy conservation standards for those types of covered equipment subject to ASHRAE Standard 90.1, at a minimum, every 6 years after issuance of any final rule establishing or amending a standard (42 U.S.C. 6313(a)(6)(A)-(C)). DOE is conducting this review of the energy conservation standards for CWAFs under EPCA's six-year-lookback authority. (42 U.S.C. 6313(a)(6)(C))

For this proposed determination, DOE considered CWAFs subject to the current Federal energy conservation standards specified in the Code of Federal Regulations (CFR) at 10 CFR 431.77. In a direct final rule published in the *Federal Register* on

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[1] For editorial reasons, upon codification in the U.S. Code, Part C was re-designated Part A-1.

[2] All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Pub. L. 116-260 (Dec. 27, 2020), which reflects the last statutory amendments that impact Parts A and A-1 of EPCA.

[3] Air-cooled commercial package air conditioning and heating equipment (referred to as "air-cooled unitary air conditioners and air-cooled unitary heat pumps" or "ACUACs and ACUHPs") were also included in the scope of the request for information ("RFI") published by DOE on May 12, 2020 ("May 2020 RFI") that precedes this NOPD. 85 FR 27941. In this NOPD, DOE only addresses CWAFs. DOE will address ACUACs and ACUHPs in a separate proceeding.

January 15, 2016 ("January 2016 final rule"), DOE, in relevant part, established amended standards for CWAFs, including energy conservation standards for which compliance is required beginning on January 1, 2023. 81 FR 2420. DOE has tentatively determined that there is significant uncertainty regarding whether more-stringent standards would be economically justified at this time, a matter which the Department discusses in more detail in section III.F of this document. Therefore, DOE has preliminarily determined that the energy conservation standards for CWAFs do not need to be amended because there is not clear and convincing evidence that amended standards would be economically justified, as required by EPCA to establish a more-stringent standard. (42 U.S.C. 6313(a)(6)(A)(ii)(II))

II. Introduction

The following section briefly discusses the statutory authority underlying this proposed determination, as well as the historical background relevant to the establishment of energy conservation standards for CWAFs.

A. Authority

EPCA, Pub. L. 94-163 (42 U.S.C. 6291-6317, as codified), among other things, authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. Title III, Part C of EPCA, added by Pub. L. 95-619, Title IV, section 441(a) (42 U.S.C. 6311-6317, as codified), established the Energy Conservation Program for Certain Industrial Equipment, which sets forth a variety of provisions designed to improve energy efficiency. This equipment includes CWAFs, the subject of this document. (42 U.S.C. 6311(J))

The energy conservation program under EPCA consists essentially of four parts: (1) testing, (2) labeling, (3) the establishment of Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA include definitions (42 U.S.C. 6311), energy conservation standards (42 U.S.C. 6313), test procedures (42 U.S.C. 6314), labeling provisions (42 U.S.C. 6315), and the authority to require information and reports from manufacturers (42 U.S.C. 6316).

Federal energy conservation requirements for covered equipment established under EPCA generally supersede State laws and regulations concerning energy conservation testing, labeling, and standards. (42 U.S.C. 6316(a) and 42 U.S.C. 6316(b); 42 U.S.C. 6297) DOE may, however, grant waivers of Federal preemption in limited circumstances for particular State laws or regulations, in accordance with the procedures and other provisions set forth under EPCA. (42 U.S.C. 6316(b)(2)(D), which incorporates the preemption waiver provisions of 42 U.S.C. 6297(d))

EPCA prescribed initial mandatory energy conservation standards for CWAFs. (42 U.S.C. 6313(a)(4)) In doing so, EPCA established Federal energy conservation standards that generally corresponded to the levels in the ASHRAE Standards 90.1 in effect on October 24, 1992 (*i.e.*, ASHRAE Standard 90.1-1989).

In overview, if ASHRAE Standard 90.1 is amended with respect to the standard levels or design requirements applicable under that standard for certain commercial equipment, including CWAFs, not later than 180 days after the amendment of the standard, DOE must publish in the *Federal Register* for public comment an analysis of the energy savings potential of amended energy efficiency standards. (42 U.S.C. 6313(a)(6)(A)(i)) DOE must adopt amended energy conservation standards at the new

efficiency level in ASHRAE Standard 90.1, unless DOE determines that there is clear and convincing evidence to support a determination that the adoption of a more stringent efficiency level as a uniform national standard would produce significant additional energy savings and be technologically feasible and economically justified.[4] (42 U.S.C. 6313(a)(6)(A)(ii))

If DOE decides to adopt, as a uniform national standard, the efficiency levels specified in the amended ASHRAE Standard 90.1, DOE must establish such standard not later than 18 months after publication of the amended industry standard. (42 U.S.C. 6313(a)(6)(A)(ii)(I)) However, if DOE determines, supported by clear and convincing evidence, that a more-stringent uniform national standard would result in significant additional conservation of energy and is technologically feasible and economically justified, then DOE must establish the more-stringent standard not later than 30 months after publication of the amended ASHRAE Standard 90.1. (42 U.S.C. 6313(a)(6)(A)(ii)(II) and (B)(i))

EPCA also requires that every six years DOE shall evaluate the energy conservation standards for each class of certain covered commercial equipment, including CWAFs, and publish either a notice of determination that the standards do not need to be amended, or a notice of proposed rulemaking ("NOPR") that includes new

[4] In determining whether a more-stringent standard is economically justified, EPCA directs DOE to determine, after receiving views and comments from the public, whether the benefits of the proposed standard exceed the burdens of the proposed standard by, to the maximum extent practicable, considering the following seven factors: (1) The economic impact of the standard on the manufacturers and consumers of the products subject to the standard; (2) The savings in operating costs throughout the estimated average life of the product compared to any increases in the initial price of, initial charges for, or maintenance expense of the products that are likely to result from the standard; (3) The total projected amount of energy savings likely to result directly from the standard; (4) Any lessening of the utility or the performance of the products likely to result from the standard; (5) The impact of any lessening of competition, as determined in writing by the Attorney General, that is likely to result from the standard; (6) The need for national energy conservation; and (7) Other factors the Secretary of Energy ("Secretary") considers relevant. (42 U.S.C. 6313(a)(6)(B)(ii))

proposed energy conservation standards (proceeding to a final rule, as appropriate). (42 U.S.C. 6313(a)(6)(C)(i)) EPCA further provides that, not later than three years after the issuance of a final determination not to amend standards, DOE must publish either a notification of determination that standards for the product do not need to be amended, or a NOPR including new proposed energy conservation standards (proceeding to a final rule, as appropriate). (42 U.S.C. 6313(a)(6)(C)(iii)(II))

A determination of whether amended energy conservation standards are needed must be based on the same considerations as if it were adopting a standard that is more stringent than an amendment to ASHRAE Standard 90.1. (42 U.S.C. 6313(a)(6)(C)(i)(II); 42 U.S.C. 6313(a)(6)(A)-(B)) DOE must make the analysis on which a determination is based publicly available and provide an opportunity for written comment. (42 U.S.C. 6313(a)(6)(C)(ii)) Further, there must be clear and convincing evidence that a determination that more-stringent standards would (1) result in significant additional conservation of energy, (2) be technologically feasible and (3) be economically justified. (42 U.S.C. 6313(a)(6)(C)(i); 42 U.S.C. 6313(a)(6)(A))

DOE is publishing this NOPD in satisfaction of the six-year-lookback review requirement in EPCA, having initially determined that DOE lacks clear and convincing evidence that amended standards for CWAFs would be economically justified.

B. Background

In a final rule published in the *Federal Register* on October 21, 2004 ("October 2004 final rule"), DOE codified energy conservation standards for CWAFs equal to those established in EPCA (*i.e.*, a thermal efficiency of 80 percent for gas-fired CWAFs, and a thermal efficiency of 81 percent for oil-fired CWAFs). 69 FR 61916, 61941. The

standards established in the October 2004 final rule are the same as DOE's current CWAF standards for CWAFs manufactured before January 1, 2023. 10 CFR 431.77.

As noted previously, DOE most recently amended the energy conservation standards for CWAFs in the January 2016 final rule, which requires compliance beginning on January 1, 2023. 81 FR 2420 (Jan. 15, 2016).

Since publication of the January 2016 final rule, ASHRAE published two updated versions of ASHRAE Standard 90.1, one in 2016 ("ASHRAE Standard 90.1-2016") and another in 2019 ("ASHRAE Standard 90.1-2019"). The CWAF standards adopted in the January 2016 final rule (*i.e.*, the standards which take effect on and after the January 1, 2023 compliance date) are more stringent than the minimum efficiency levels for CWAFs in ASHRAE Standard 90.1-2016. ASHRAE 90.1-2019 updated the minimum efficiency levels for CWAFs to align with those adopted by DOE in the January 2016 final rule.[5] Because neither ASHRAE Standard 90.1-2016 nor ASHRAE Standard 90.1-2019 contained minimum efficiency levels more stringent than the current Federal standards for CWAFs, DOE was not triggered to examine amended standards for this equipment

[5] It is DOE's understanding that the relevant provisions of ASHRAE Standard 90.1-2019 pertaining to CWAF standards contained a typographical error. Table 6.8.1-5 of ASHRAE Standard 90.1-2019 specifies a thermal efficiency (TE) requirement of 82 percent for oil-fired CWAFs applicable after January 1, 2023, which aligns with the standard adopted by the January 2016 final rule. However, Table 6.8.1-5 of ASHRAE 90.1-2019 also specifies a TE requirement of only 80 percent for oil-fired CWAFs applicable before January 1, 2023, whereas the previous version, ASHRAE 90.1-2016, specified a TE requirement of 81 percent for this class. DOE understands the 80-percent level in ASHRAE Standard 90.1-2019 to be a typographical error, and that the TE requirement for oil-fired warm-air furnaces ≥225,000 Btu/h before January 1, 2023 should be 81 percent, thereby aligning with ASHRAE Standard 90.1-2016 and the current Federal standard. Since the 80-percent level in ASHRAE Standard 90.1-2019 is lower than the corresponding current Federal standard, DOE cannot consider adopting the ASHRAE Standard 90.1-2019 level due to the "anti-backsliding" provision in EPCA, which prevents the Secretary from prescribing any amended standard that either increases the maximum allowable energy use or decreases the minimum required energy efficiency of a covered product. (42 U.S.C. 6313(a)(6)(B)(iii)(I)) Further, because the revised ASHRAE Standard 90.1-2019 lowers the standard, as compared to the level specified by the uniform national standard adopted pursuant to EPCA, DOE did not have the authority to conduct a rulemaking to consider a higher standard for that equipment pursuant to 42 U.S.C. 6313(a)(6)(A)(ii)(II) (*i.e.,* DOE is not triggered). *See* 84 FR 3910, 3915 (Feb. 13, 2019).

under 42 U.S.C. 6313(a)(6)(A).[6] As a result, despite these intervening ASHRAE actions, the Federal standards for CWAFs are those set forth in the January 2016 final rule and codified in DOE's regulations at 10 CFR 431.77.

More specifically, for gas-fired CWAFs manufactured starting on January 1, 1994, until January 1, 2023, the thermal efficiency ("TE") at the maximum rated capacity (*i.e.*, rated maximum input) must be not less than 80 percent. For gas-fired CWAFs manufactured starting on January 1, 2023, the TE at the maximum rated capacity must be not less than 81 percent. For oil-fired CWAFs manufactured starting on January 1, 1994, until January 1, 2023, the TE at the maximum rated capacity must be not less than 81 percent. For oil-fired CWAFs manufactured starting on January 1, 2023, the TE at the maximum rated capacity must be not less than 82 percent. 10 CFR 431.77

In the January 2016 final rule, DOE rejected more-stringent standards on the basis that benefits of energy savings, emission reductions, and the estimated monetary value of the emissions reductions would be outweighed by the economic burden on many consumers, negative net present value ("NPV") of consumer benefits, and the impacts on manufacturers, including the conversion costs and profit margin impacts that could result in a large reduction in industry net present value ("INPV"). 81 FR 2420, 2522 (Jan. 15, 2016).

In support of its present review of the CWAF energy conservation standards, DOE published in the *Federal Register* a request for information (RFI) on May 12, 2020

[6] DOE assessed whether it was triggered based upon consideration of the current Federal standards codified at 10 CFR 431.77, which were promulgated through the final rule published in the *Federal Register* on 81 FR 2420 (Jan. 15, 2016). In doing so, DOE considered the totality of these CWAF standard levels, even though compliance with certain of those standards is not yet required (*i.e.*, a compliance date of January 1, 2023).

(May 2020 RFI), which identified various issues on which DOE sought comment, data, and information to inform its determination of whether the current Federal standards need to be amended. (It is again noted that the May 2020 RFI addressed ACUACs and ACUHPs, in addition to CWAFs.) 85 FR 27941.

DOE received numerous comments in response to the May 2020 RFI from interested parties, as listed in Table II-1. While Table II-1 includes all parties that commented in response to the May 2020 RFI, only those comments relevant to CWAFs are summarized and addressed in this NOPD.[7] As previously mentioned, DOE will consider ACUACs and ACUHPs in a separate proceeding, in which the Department will address comments received in response to the May 2020 RFI related to ACUACs and ACUHPs.

[7] The following stakeholders listed in Table II-1 did not provide comments relevant to CWAFs and, therefore, are not discussed further in this document: PGE, UCA, Verified Inc., Heinemeier, and Walsh.

Table II-1 Interested Parties that Provided Written Comment on the May 2020 RFI

Commenter(s)	Acronym Used in this NOPD	Commenter Type
United CoolAir Corporation	UCA	Manufacturer
Lennox International, Inc.	Lennox	Manufacturer
Carrier Corporation	Carrier	Manufacturer
Trane Technologies	Trane	Manufacturer
Goodman Manufacturing Company, L.P.	Goodman	Manufacturer
Spire Inc.	Spire	Utility
Air-Conditioning, Heating, and Refrigeration Institute	AHRI	Trade Association
American Public Gas Association	APGA	Trade Association
Portland General Electric Company	PGE	Utility
Northwest Energy Efficiency Alliance	NEEA	Efficiency Organization
California Investor-Owned Utilities	CA IOUs	Utility
Appliance Standards Awareness Project, American Council for an Energy-Efficient Economy, California Energy Commission, Natural Resources Defense Council, and Northeast Energy Efficiency Partnerships	Joint Advocates	Efficiency Organizations and State Government
Institute for Policy Integrity at NYU School of Law	Policy Integrity	Academic Institution
Robert Mowris	Verified Inc.	Other Stakeholder
Kristin Heinemeier	Heinemeier	Other Stakeholder
John Walsh	Walsh	Other Stakeholder
Daniel Harkins	Harkins	Other Stakeholder

A parenthetical reference at the end of a comment quotation or paraphrase provides the location of the item in the public record.[8]

C. Deviation from Appendix A

In accordance with section 3(a) of 10 CFR Part 430, subpart C, appendix A ("appendix A"), DOE notes that it is deviating from the provision in appendix A regarding the comment period for a notice of proposed rulemaking.. Section 6(f)(2) of

[8] The parenthetical reference provides a reference for information located in the docket. (Docket No. EERE-2019-BT-STD-0042, which is maintained at *www.regulations.gov/docket?D=EERE-2019-BT-STD-0042)*. The references are arranged as follows: (commenter name, comment docket ID number, page of that document).

appendix A specifies that the length of the public comment period for a NOPR will not be less than 75 days. For this proposed determination, DOE has opted to instead provide a 60-day comment period. As stated previously, DOE requested comment in the May 2020 RFI on the technical and economic analyses that would be used to determine whether, based on clear and convincing evidence, a more-stringent standard would result in significant additional conservation of energy and is technologically feasible and economically justified. DOE has determined that a 60-day comment period, in conjunction with the prior May 2020 RFI, provides sufficient time for interested parties to review the proposed rule and develop comments.

III. General Discussion and Rationale

DOE developed this proposed determination after a review of the CWAF market, including product literature and product listings in the DOE Compliance Certification Management System (CCMS) database. DOE also considered comments, data, and information from interested parties that represent a variety of interests. This notice addresses issues raised by these commenters.

A. General Comments

DOE received multiple comments from stakeholders stating generally that DOE should not amend the current Federal standards for CWAFs. (AHRI, No. 14 at p. 3; Carrier, No. 13 at pp. 4–5, 18–19; Lennox, No. 15 at pp. 1, 3; Trane, No. 16 at p. 2; APGA, No. 19 at pp. 1–3; Spire, No. 21 at pp. 2–3) More specifically, AHRI, Carrier, Lennox, and Trane argued that the current Federal standards should not be amended because of the regulatory burdens manufacturers already face. (AHRI, No. 14 at p. 2; Carrier, No. 13 at pp. 18–19; Lennox, No. 15 at p. 4; Trane, No. 16 at p. 2) Commenters

also asserted that the impacts associated with the 2023 standards cannot be assessed at this time because the standards have yet to take effect, and, therefore, considering new standards prior to 2023 would be premature. (Lennox, No. 15 at pp. 2–3; AHRI, No. 14 at p. 3; Carrier, No. 13 at p. 8; Trane, No. 16 at p. 2)

DOE also received comments from several other stakeholders generally expressing support for DOE evaluating and amending the current energy conservation standards for CWAFs. (Joint Advocates, No. 23 at p. 1; CA IOUs No. 20 at pp. 1–7; NEEA, No. 24 at pp. 1–10) More specifically, the Joint Advocates stated that very large energy savings could result from amended standards for CWAFs, citing the max-tech efficiency levels analyzed in the January 2016 final rule, as well as the range of efficiencies in the current market. (Joint Advocates, No. 23 at pp. 1–2) NEEA and the CA IOUs similarly commented as to the potential for energy savings. (CA IOUs No. 20 at pp. 1–7; NEEA, No. 24 at pp. 1, 5–7)

In response to the May 2020 RFI, AHRI asserted that DOE is not statutorily required to review amended standards under the six-year-lookback rulemaking for CWAFs, based on the fact that the 2023 standards adopted in the January 2016 final rule have not yet come into effect. (AHRI, No. 14 at p. 3) DOE disagrees with AHRI's reading of the statute. The statute does not reference compliance dates from previous rulemakings in setting the timing for DOE's required review, but instead, the language of EPCA simply requires DOE to evaluate amended standards for CWAFs every 6 years, which DOE has interpreted as running from publication of the last final rule to amend the applicable standards. (*see* 42 U.S.C. 6313(a)(6)(C)(i)) However, DOE acknowledges that if it were to set standards under EPCA's six-year-lookback provision, the statute would require DOE to set a compliance date that is the later of: (1) the date three years after publication of the final rule establishing the amended standard or (2) the date that is

six years after the effective date of the current standard for a covered product (in this case 2029). (*see* 42 U.S.C. 6313(a)(6)(C)(iv))

Therefore, pursuant to its statutory obligations (particularly EPCA's required six-year-lookback review under 42 U.S.C. 6313(a)(6)(C)) and as discussed in this NOPD, DOE has considered the potential for amended standards for CWAFs. Such review is necessary for DOE to determine whether potential amended energy conservation standards for CWAFs would meet the applicable statutory criteria. DOE's analyses in this proceeding also allow it to evaluate the opposing view of the comments previously discussed regarding the appropriateness of amended CWAF standards.

B. Equipment Classes and Scope of Coverage

For CWAFs, the current energy conservation standards specified in 10 CFR 431.77 are based on two equipment classes determined according to fuel type: gas-fired CWAFs and oil-fired CWAFs. The current standards are consistent with the equipment class structure in the current version of ASHRAE Standard 90.1.

1. Equipment Class Structure

In response to the May 2020 RFI, NEEA recommended that DOE should consider dividing the gas-fired CWAF equipment class into two or more classes by capacity. NEEA argued that smaller units are more prominent in commercial buildings, that analyzing them as a separate equipment class would help identify their unique characteristics and challenges, and that the cost-effectiveness of efficiency features for smaller units will be different than those of larger units. (NEEA, No. 24 at p. 3)

DOE declines to make NEEA's recommended changes to the CWAF class

structure for the reasons that follow. First, as discussed in section III.F of this document, DOE has tentatively determined that it lacks clear and convincing evidence that amended standards for CWAFs would be economically justified. As explained in that section, DOE has tentatively determined that the market for CWAFs has not yet fully responded to the pending 2023 energy conservation standards. This uncertainty extends to the energy characteristics of the market against which any alternate equipment class scheme would be compared. However, more importantly, DOE has determined that it lacks statutory authority to make the changes NEEA requests, as explained subsequently.

As a general rule, for covered consumer products, EPCA requires that a rule prescribing an energy conservation standard for a type (or class) of covered products shall specify a different level of energy use or efficiency (either higher or lower) than that which applies (or would apply) to any group of covered products that have the same function or intended use, if the Secretary determines that covered products within such group either: (1) consume a different kind of energy; or (2) have a capacity or other performance-related feature which other products within such type (or class) do not have and such feature justifies a different standard from that which applies (or will apply) to other products within such type (or class). (42 U.S.C. 6295(q)(1)) These provisions also apply to covered commercial and industrial equipment -- other than ASHRAE equipment -- through the statutory crosswalk provision at 42 U.S.C. 6316(a). In contrast, ASHRAE equipment, which includes CWAFs, has its own separate statutory scheme under EPCA, as described in section II.A of this document. For ASHRAE equipment, there is neither a companion provision nor crosswalk to 42 U.S.C. 6295(q)(1). Therefore, EPCA in essence requires DOE to establish energy conservation standards for CWAFs at the minimum efficiencies set forth in ASHRAE Standard 90.1 (unless DOE has clear and convincing evidence to adopt more-stringent standards), consistent with the equipment

class structure in ASHRAE Standard 90.1. (*See* 42 U.S.C. 6313(a)(6)(A)) Consequently, DOE is not considering amendments to the equipment classes for CWAFs.

2. Definition and Coverage

EPCA defines a "warm air furnace" as a self-contained oil- or gas-fired furnace designed to supply heated air through ducts to spaces that require it and includes combination warm air furnace/electric air conditioning units but does not include unit heaters and duct furnaces. (42 U.S.C. 6311(11)(A)) A "commercial warm air furnace" is further defined in DOE's regulations as a warm air furnace that is industrial equipment, and that has a capacity (rated maximum input) of 225,000 British thermal units ("Btu") per hour or more. 10 CFR 431.72. In the May 2020 RFI, DOE requested comment on whether the Department's regulatory definition for "commercial warm air furnace," or related definitions, require any revisions, and if so, how those definitions should be revised. 85 FR 27941, 27945 (May 12, 2020).

Trane stated that it does not see the need for any changes to the definition of CWAF. (Trane, No. 16 at p. 3) Conversely, NEEA recommended that DOE should consider updating its definition for CWAF to account for different operating characteristics, different functions, or use cases in order to reduce uncertainty as to the applicable standard and test procedure and to provide more comprehensive coverage. (NEEA, No. 24 at p. 5)

In response, DOE reviewed the definition of "commercial warm air furnace." The codified definition of "warm air furnace" at 10 CFR 431.72 matches EPCA's definition of a "warm air furnace" at 42 U.S.C 6311(11)(A). A CWAF is defined at 10 CFR 431.72 as a warm air furnace with the additional requirements that it be industrial equipment

having a capacity (rated maximum input) of 225,000 Btu per hour ("Btu/h") or more, which picks up where the upper limit of consumer furnace input capacity for consumer furnaces leaves off (*see* 42 U.S.C. 6291(23)(D)). After careful review, DOE considers this definition to be appropriately aligned with the definition in EPCA and to adequately cover commercial furnaces. (As discussed later in this section, DOE identified a small number of furnace models that are not covered by either the consumer furnace definition or the CWAF definition, but tentatively concludes that amending the CWAF definition in the CFR to cover those models is unnecessary because it would be duplicative, and would provide little opportunity for energy savings.) Therefore, DOE has tentatively determined that no amendments to the regulatory definitions for "commercial warm air furnace" or "warm air furnace" are needed.

AHRI and Carrier suggested modifying the definition of "commercial warm air furnace" to introduce an upper limit to the input capacity of covered CWAFs. (AHRI, No. 14 at p. 4; Carrier, No. 13 at p. 3) DOE notes that the topic of an upper capacity limit was discussed previously in a NOPR published in the *Federal Register* on February 4, 2015 ("February 2015 NOPR"). 80 FR 6182, 6192–6193. In the February 2015 NOPR, DOE noted that neither EPCA nor DOE's existing regulations for CWAFs specify an upper limit to the input rating of covered equipment, and that establishing an upper limit would potentially remove coverage of models that would have otherwise been covered by DOE regulations. Because of this, DOE did not propose an upper limit on the input capacity of covered CWAF. *Id.* DOE tentatively maintains its position taken in the February 2015 NOPR and, therefore, is not proposing an upper limit on the input capacity of covered CWAFs.

Carrier stated that there are gaps in coverage between the consumer furnace and CWAF definitions, so the commenter recommended that the CWAF definition should be modified to address those gaps. Specifically, Carrier stated that three-phase furnaces with input ratings less than 225,000 Btu/h, as well as single-phase furnaces with input ratings less than 225,000 Btu/h that are installed within the same cabinet as an air conditioner with a cooling capacity greater than 65,000 Btu/h, are not covered by either definition. Carrier recommended that the CWAF definition be expanded to classify furnaces that are currently unregulated as CWAFs, with the option of rating either with annual fuel utilization efficiency ("AFUE") or TE, as allowed in ASHRAE Standard 90.1. (Carrier, No. 13 at pp. 2–3)

As previously stated, DOE defines a "commercial warm air furnace" as a warm air furnace that is industrial equipment, and that has a capacity (rated maximum input) of 225,000 Btu per hour or more. 10 CFR 431.72. DOE defines a consumer "furnace" as a product which utilizes only single-phase electric current, or single-phase electric current or DC current in conjunction with natural gas, propane, or home heating oil, and which: (1) is designed to be the principal heating source for the living space of a residence; (2) is not contained within the same cabinet with a central air conditioner whose rated cooling capacity is above 65,000 Btu per hour; (3) is an electric central furnace, electric boiler, forced-air central furnace, gravity central furnace, or low-pressure steam or hot water boiler; and (4) has a heat input rate of less than 300,000 Btu per hour for electric boilers and low-pressure steam or hot water boilers and less than 225,000 Btu per hour for forced-air central furnaces, gravity central furnaces, and electric central furnaces. 10 CFR 430.2. This potential gap in coverage was addressed in the February 2015 NOPR, in which DOE did not propose to extend CWAF coverage to three-phase, less than 225,000 Btu/h equipment. 80 FR 6182, 6192 (Feb. 4, 2015). In the February 2015

NOPR, DOE agreed with commenters that there is limited potential for energy savings from coverage of such units due to the fact that equipment with these characteristics are already meeting efficiency levels specified by ASHRAE Standard 90.1. In its review of the market at the time, DOE did not identify any equipment with an efficiency level below that specified in ASHRAE Standard 90.1 levels for analogous equipment, and thus, tentatively determined that a separate equipment class and standard for this equipment may be unnecessarily duplicative and provide little opportunity for energy savings. *Id.*

For this notice, DOE reexamined this matter, and the agency once again reviewed the market and found a small number of gas-fired furnace models that are three-phase with an input rating less than 225,000 Btu/h. The Department found that for all of these models, manufacturers provide efficiency ratings, and the models meet or exceed the current gas-fired CWAF standards. Further, a majority of models identified also meet or exceed the 2023 gas-fired CWAF standards. In addition, DOE notes that these individual models make up a very small portion (roughly 2 percent) of the total CWAF market. Therefore, DOE tentatively maintains its previous conclusion that there is limited potential for energy savings from extending the "commercial warm air furnace" definition to cover this equipment due to the small size of the market and the fact that these products appear to meet or exceed the minimum energy conservation standards despite falling in a coverage gap. DOE also was unable to identify any models currently on the market with input ratings less than 225,000 Btu/h and that are contained within the same cabinet as a central air conditioner with a cooling capacity greater than 65,000 Btu/h, indicating that there would likely be no potential for additional energy savings from covering this equipment. Therefore, DOE has tentatively determined that amending

the CWAF definition to cover such equipment would provide little opportunity for energy savings and is not proposing to do so in this notice.

C. Test Procedures

EPCA sets forth generally applicable criteria and procedures for DOE's adoption and amendment of test procedures. (42 U.S.C. 6314(a)) As a general matter, manufacturers of covered ASHRAE equipment must use these test procedures to certify to DOE that their equipment complies with energy conservation standards and to quantify the efficiency of their equipment. (42 U.S.C. 6316(b); 42 U.S.C. 6296) DOE's current energy conservation standards for CWAFs are expressed in terms of a minimum thermal efficiency in percent. (*See* 10 CFR 431.77) The applicable test procedure for CWAFs is found at 10 CFR 431.76, "Uniform Test Method for Measurement of Energy Efficiency of Commercial Warm Air Furnaces."

In commenting on the May 2020 RFI, DOE received input from multiple stakeholders regarding DOE's CWAF test procedure, particularly as relates to jacket loss. (Joint Advocates, No. 23 at pp. 3-4; NEEA, No. 24 at pp. 6–7; CA IOUs, No. 20 at p. 4; AHRI, No. 14 at p. 4; Carrier, No. 13. at p. 5; Goodman, No. 17 at p. 2) DOE also received comments from stakeholders regarding DOE's CWAF test procedure relating to auxiliary electrical consumption. (Joint Advocates, No. 23 at pp. 2–3) However, on May 5, 2020, DOE published a test procedure RFI for CWAFs ("May 2020 CWAF TP RFI") in the *Federal Register* to initiate its review of the CWAF test procedure. DOE notes that the May 2020 CWAF TP RFI specifically requested comment on jacket loss and auxiliary electrical consumption. 85 FR 26626, 26631, 26332 (May 5, 2020). DOE reasons that it is most appropriate to consider issues related to the CWAF test procedure as part of a separate, dedicated test procedure rulemaking for such equipment.

Consequently, DOE will address comments received in response to both the May 2020 RFI and May 2020 CWAF TP RFI regarding these topics as part of the CWAF test procedure proceeding.

D. Market and Technology Assessment, and Engineering Analysis

In the May 2020 RFI, DOE requested comment on topics related to performing a market and technology assessment, screening analysis, and engineering analysis. 85 FR 27941, 27945–27950 (May 12, 2020). More specifically, DOE requested comment on: (1) technology options that should be considered in a potential market and technology assessment; (2) the representative designs and characteristics of models that would be expected to be on the market after the 2023 compliance date; (3) the screening criteria used to determine whether technologies are included in the engineering analysis; (4) baseline efficiency levels; (5) max-tech efficiency levels; (6) manufacturer production costs; and (7) manufacturer selling prices. *Id*.

Regarding CWAF technology options, Carrier and Lennox stated that the technology options considered in the analysis for the January 2016 final rule and presented in the May 2020 RFI for CWAFs are appropriate. (Lennox, No. 15 at p. 5; Carrier, No. 13 at p. 4) Trane asserted that pre-mixed burners[9] do not provide benefits, that burner de-rating[10] may result in oversizing burners for CWAF applications, and that concentric venting may not be appliable to rooftop applications due to the length of the vent. (Trane, No. 16 at p. 4) NEEA and the Joint Advocates suggested that DOE should consider additional technology options for CWAFs that are were not listed in the May 2020 RFI. (NEEA, No. 24 at p. 6; Joint Advocates, No. 23 at p. 4) More specifically,

[9] Pre-mixed burners mix the primary air and the fuel prior to combustion, which reduces or eliminates the need for secondary air and results in more complete combustion.
[10] "Burner de-rating" means decreasing the burner firing rate to increase the ratio of heat transfer area to fuel input.

NEEA recommended that increased jacket insulation, decreased casing leakage, heat recovery equipment, high- efficiency fans, variable-speed motors, low-leak dampers, modulating heat or cooling, and advanced controls such as demand control ventilation should be considered, and the Joint Advocates recommended DOE should consider insulation improvements and any technology options that may reduce the auxiliary electrical consumption of CWAFs. *Id.* Harkins recommended DOE consider all technologies that increase efficiency. (Harkins, No. 25 at p. 1)

Regarding the designs and characteristics of the CWAF markets after the 2023 compliance date of the current set of standards, DOE received comments from multiple stakeholders asserting that the current CWAF markets are not representative of the models that would be expected to be on the market after the 2023 standards take effect. (Carrier, No. 13 at pp. 7–8; Trane, No. 16 at p. 7) AHRI commented that it is impossible to forecast the market impact of the 2023 standards on CWAFs. (AHRI, No. 14 at p. 3) Carrier asserted that manufacturers will be working to optimize efficiencies, lower cost, and implement new entry-level products, and that the upcoming 2023 standards are causing manufacturers to further optimize their higher-efficiency equipment. (Carrier, No. 13 at pp. 7–8) According to Trane, the furnaces currently on the market will need to be redesigned to meet the 2023 standards. (Trane, No. 16 at p. 7) In contrast, Lennox commented that the CWAF models on the market are representative of designs and characteristics of models that would be expected to be on the market after the 2023 compliance date, although Lennox acknowledged that the market impacts of the 2023 standards are unknown because of uncertainties in assessing the evolving market, including uncertainties in future shipments, the economic impact on manufacturers and consumers, and the total projected energy savings. (Lennox, No. 15 at pp. 5–6)

In response to these comments, DOE explains that it conducted a preliminary market assessment based on the current CWAF market. DOE found that the characteristics of the current CWAF market are largely the same as when DOE assessed the CWAF market in the context of the proceeding culminating in the January 2016 final rule. However, unlike the market at that time, there are currently no condensing CWAFs (which typically have a TE of 90 percent or greater) or gas-fired CWAFs with a TE of 82 percent certified to DOE through the CCMS.[11] Furthermore, DOE's review of the market indicates that the available technologies used to achieve the 2023 baseline efficiency level, as compared to the technologies that could be used to achieve higher levels of thermal efficiency (*i.e.*, condensing technology) under the existing test procedure, have not changed significantly. Although NEEA and the Joint Advocates suggest analyzing numerous technologies (*e.g.*, increased jacket insulation, decreased jacket leakage, heat recovery equipment, high-efficiency fans, variable-speed motors, low-leak dampers, modulating heat or cooling, advanced controls such as demand control ventilation, and any technology options that may reduce the auxiliary electrical consumption of CWAFs), none of the technologies identified by these commenters would improve thermal efficiency as it is measured today. More specifically, these technology options are not currently incorporated into the DOE CWAF test procedure, or the measurement of CWAF performance, because the current DOE test method does not require measurement of jacket losses and accounts for operation only when operating at the maximum input rating at steady state. DOE initially decided to exclude jacket loss from the calculation of TE in a NOPR published on December 13, 1999. 64 FR 69598, 69601 (December 1999 NOPR).[12] Therefore, because the technologies would not impact the regulatory metric

[11] DOE's Compliance Certification Database for CWAFs is available at: *www.regulations.doe.gov/ccms* (Last accessed Jan. 12, 2022).

[12] In the December 1999 NOPR, DOE did not include jacket loss in the TE calculation, having determined that, consistent with adopting industry test standards referenced in ASHRAE/IES Standard 90.1–1989, the statute's intent was to assign the same meaning to the term "thermal efficiency" as its definition in the

(TE), it would not be appropriate to consider them as potential technologies for improving CWAF efficiency at this time.

Regarding the screening criteria and analysis, AHRI and Carrier supported screening out CWAF technology options along the lines presented in the May 2020 RFI (which were the same technology options screened out in the January 2016 final rule). (AHRI, No. 14 at p. 5; Carrier, No. 13 at p. 7) Carrier also recommended that an additional screening criterion be added to address the cost of the technology option. (Carrier, No. 13 at pp. 6–7)

In response to Carrier's suggestion that DOE include an additional screening criterion to address cost of the technology option, DOE notes that the current screening criteria are included in 10 CFR part 430, subpart C, Appendix A, "Procedures, Interpretations, and Policies for Consideration of New or Revised Energy Conservation Standards and Test Procedures for Consumer Products and Certain Commercial/Industrial Equipment." *See* sections 6(b)(3) and 7(b). These criteria do not include an evaluation of the cost of a technology option, which is instead evaluated in the engineering analysis and subsequently in the consumer economic analyses. Thus, DOE asserts that it would be inappropriate to exclude a technology option from consideration based solely on incremental technology cost increases, because changes in the cost of equipment are more appropriately considered as part of the consumer economic analyses.

Regarding baseline efficiency levels, multiple commenters stated that the 2023 CWAF standards would be the correct baseline efficiency to be used in a future DOE

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corresponding referenced standards (*i.e.*, 100 percent minus percent flue loss). 64 FR 69598, 69601 (Dec. 13, 1999). DOE's determination in the December 1999 NOPR was informed by a public workshop held on April 14 and 15, 1998, and what DOE understood to be the consensus of the participants that TE should not include jacket loss, because ANSI Z21.47 defined TE without jacket loss. *Id.*

analysis. (AHRI, No. 14 at p. 6; Lennox, No. 15 at p. 6; Goodman, No. 17 at p. 3; Carrier, No. 13 at pp. 8–9)

Regarding the max-tech levels, multiple stakeholders asserted that the 2023 CWAF standards are the highest possible for non-condensing equipment and recommended that a higher standard requiring condensing operation should not be considered. (AHRI, No. 14 at p. 7; Trane, No. 16 at pp. 4, 7; Carrier, No. 13 at pp. 4–5, 10; Goodman, No. 17 at p. 3; Spire, No. 21 at p. 2; Lennox, No. 15 at p. 5) Carrier, Trane, and Lennox cautioned that increasing the baseline efficiency past the 2023 standards by utilizing improvements in these technology options would result in condensing operation, thereby imposing additional burden on manufacturers. (Lennox, No. 15 at p. 5; Carrier, No. 13 at pp. 4–5; Trane, No. 16 at p. 4) Commenters citied technological problems associated with implementing CWAF standards at a level that would require condensing operation, including issues related to condensate disposal. Such issues included high costs, as well as practicality and the ability to dispose of condensate properly. *Id.* In contrast, the Joint Advocates and NEEA recommended that DOE should consider a condensing standard because of the potential for energy savings. (Joint Advocates, No. 23 at p. 4, NEEA, No. 24 at p. 7). DOE discusses the merits of establishing a condensing standard in section III.F of this document.

Regarding manufacturer production costs, manufacturer selling price, and how manufacturers would incorporate technology options to increase energy efficiency above the baseline, Carrier and Trane stated that the technology options listed in the May 2020 RFI (which were the options considered in the January 2016 final rule) are used to increase efficiency. (Carrier, No. 13 at p. 11; Trane, No. 16 at p. 8) AHRI stated that generally, the engineering analysis in the January 2016 final rule was accurate at the time.

(AHRI, No. 14 at p. 7)

DOE considered how the manufacturer production cost and selling price of CWAFs have changed since the January 2016 final rule. As discussed previously, the designs and technologies used in equipment on the market are generally the same as those on the market at the time of the January 2016 final rule. DOE, therefore, has tentatively determined that relevant factors such as manufacturing processes, materials, and components are the same as or similar to those in use in January 2016. However, a review of the producer price index (PPI)[13] for furnaces found that it has increased significantly, and DOE has tentatively determined such an increase would apply to technologies used to improve CWAF efficiency as well.[14] These factors indicate that to the extent that the cost of CWAFs (and in particular the cost of improving CWAF efficiency) has changed since the engineering analysis was conducted for the January 2016 final rule, it has increased. Thus, DOE does not expect that conducting additional engineering analysis would provide clear and convincing evidence that would lead DOE to differ in its conclusions from the January 2016 final rule regarding economic justification of adopting levels more stringent than those adopted in the January 2016 final rule. DOE notes that other factors also contribute to the economic justification of potential standards, and additional discussion of those factors is included in section III.E of this document.

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[13] The U.S. Bureau of Labor Statistics publishes PPI data. PPI measures the average change over time in the selling prices received by domestic producers for their output. The prices included in the PPI are from the first commercial transaction for many products and some services. For more information see: *www.bls.gov/ppi/*.

[14] Specifically, DOE reviewed the series ID PCU 333415333415C, which provides PPI information for warm air furnaces, including duct furnaces and humidifiers, and electric comfort heating. The PPI index as of August 2021 (*i.e.*, the last month for which data is available that is not subject to revision by BLS) was 186.7 as compared to 142.8 in January 2016, an increase of over 30 percent. Although recent price increases could be temporary, reviewing the 10-year trend indicates that an increase of approximately 19 percent would be expected.

In summary, DOE considered the preliminary market assessment conducted for this rulemaking, as well as comments received that are relevant to the market and technology assessment, screening, and engineering analysis. For the reasons discussed previously, DOE has tentatively determined that the current CWAF market conditions (including issues in meeting more-stringent standards that would require use of condensing technology) are largely the same as those analyzed in the January 2016 final rule.

E. Economic and Energy Analyses

In the May 2020 RFI, DOE requested comment on a number of issues related to mark-ups and distribution channels, the energy use analysis, the life-cycle cost analysis, repair and maintenance costs, the shipments analysis, and the national impact analysis. 85 FR 27941, 27950–27953 (May 12, 2020). DOE specifically requested information to describe how equipment moves from the manufacturer to the customer, the relative sales volume through each channel, data to estimate the mark-ups at each segment in the distribution channel, the energy use methodology, inputs to the life-cycle-cost model such as equipment lifetime, installation, repair, and maintenance costs, energy prices, the no-new-standards efficiency distribution, historical shipments, and future efficiency trends. *Id.*

Regarding mark-ups and distribution channels, DOE received comments from AHRI and Carrier. AHRI commented that it is researching distribution channels; however, it had no feedback at the time the comment was provided. AHRI disagreed with DOE's use of incremental mark-ups and recommended that DOE revert to using the baseline mark-up for both baseline and incremental costs. (AHRI, No. 14 at p. 8) Carrier

commented that it has not observed large shifts in the distribution channels, as the industry remains mature in the United States. (Carrier, No. 13 at p. 12)

In response, DOE notes that in the January 2016 final rule, the efficiency levels above the amended standard level were not economically justified. As DOE has received no feedback to indicate the distribution channels have changed and no feedback that markups have decreased (which would reduce the incremental costs of higher-efficiency products), DOE does not expect the outcome to change from the January 2016 final rule.

Regarding the energy use analysis, DOE received comments from the CA IOUs, AHRI, Carrier, Trane, Goodman, and NEEA. The CA IOUs commented that DOE should update the weather data used in the energy use analysis to reflect the temperatures recorded in the United States in recent years. Along these lines, the CA IOUs recommended that DOE should consider the methodology used by the California Energy Commission to update weather files to analyze Title 24 of the Building Energy Efficiency Standard.[15] (CA IOUs, No. 20 at p. 5) AHRI expressed concern that use of the 2003 Commercial Building Energy Consumption Survey (CBECS 2003) and estimating the energy consumption using an equivalent full-load hour approach does not accurately reflect equipment that is optimized for part-load performance (AHRI, No. 14 at p. 9). Trane commented that a more up-to-date building inventory analysis should be used to measure CWAF energy use. (Trane, No. 16 at p. 9) Carrier and Goodman commented that the previous analysis, from the January 2016 final rule, was based on perimeter conditions (*i.e.*, outdoor air conditions). (Carrier, No. 13 at p. 14; Goodman, No. 17 at p. 4) Carrier commented that CWAFs do not run very often due to the internal loads on the

[15] For analysis of Title 24-2022, the California Energy Commission used data from DOE's National Renewable Energy Laboratory's National Solar Radiation Database to include weather data collected between 1998-2017 (Available at: *https://nsrdb.nrel.gov/*).

building, and Goodman commented that CWAFs normally only provide morning warm up and night set back heating. (Carrier, No. 13 at p. 14; Goodman, No. 17 at p. 4) NEEA recommended that DOE should account for part-load operation, staged systems, and varying percentages of outside air. (NEEA, No. 24 at p. 9)

In response, DOE notes that while the previous analysis relied on CBECS 2003, the CWAF energy consumption was adjusted for projected decreases in heating degree days between CBECS 2003 and the compliance year.[16] Furthermore, DOE notes that the main driver of CWAF energy consumption in the January 2016 final rule is the building heating load, which is based on the reported space heating energy consumption of buildings with a furnace in CBECS 2003.[17] The previous analysis was not based on full-load hours or perimeter conditions. Finally, as stated in section III.D of this document, the Department's research suggests that the characteristics of the CWAF market are largely the same as when analyzed for the January 2016 final rule and that none of the technology options presented would improve thermal efficiency as measured in the current test procedure. Given the similar market, DOE does not anticipate the energy use to have changed sufficiently to drive a different outcome, as compared to that in the January 2016 final rule.

Regarding equipment lifetime, DOE received comments from AHRI, Carrier, and Trane. AHRI disagreed with the Weibull approach to lifetimes and stated its understanding that service lifetimes are in the range of 12 to 15 years. (AHRI, No. 14 at p. 10) In contrast, Trane stated that the Weibull approach is appropriate and that equipment lifetime should be the same as in the January 2016 final rule. (Trane, No. 16

[16] Chapter 7 of the January 2016 Final Rule Technical Support Document (Available at: *www.regulations.gov/document/EERE-2013-BT-STD-0021-0050*).
[17] *Id.*

at p. 10) Carrier likewise stated that the lifetimes determined by DOE's proposed approach seem reasonable. (Carrier, No. 13 at p. 14) AHRI and Carrier both stated that location is an important determinant of lifetime. (AHRI, No. 14 at p. 10; Carrier, No. 13 at p. 14)

In response, DOE notes that the CWAF lifetime was developed based on the lifetime model for ACUACs as nearly all CWAFs are packaged with an ACUAC. The ACUAC lifetime model was calibrated based on historical shipments data.[18] Given the similar market characteristics to the January 2016 final rule, DOE does not expect that equipment lifetime has changed significantly, and, therefore, it would not warrant changes to the findings regarding CWAF lifetimes presented in the January 2016 final rule.

Regarding repair and maintenance costs, DOE received comments from AHRI, Trane, Carrier, and Goodman. AHRI stated that the costs used in previous analyses do not reflect actual repair and maintenance costs and that typical maintenance costs are double the values reported in RS Means.[19] (AHRI, No. 14 at p. 10) Trane stated that the methodology used in the January 2016 final rule for repair and maintenance costs is adequate, although an update to a more recent version of RS Means is appropriate. (Trane, No. 16 at p. 10) Carrier stated that the higher efficiency standards in 2023 will include more costly components, and, therefore, an increased cost of equipment which could lead end users to opt for repair instead of replacement. As the higher efficiency levels require more advanced components, it will increase overall cost. Carrier also commented that the impact of A2L refrigerants and low global warming potential (GWP)

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[18] *See* Appendix 8F of the January 2016 final rule technical support document (Available at: *www.regulations.gov/document/EERE-2013-BT-STD-0021-0050*).

[19] RS Means provides construction cost information that DOE uses to estimate installation, maintenance, and repair costs of CWAFs (Available at: *https://www.rsmeansonline.com/*) (Last accessed April 10, 2013).

regulations on repair and maintenance costs is still unknown; however, the commenter believes that equipment with A2L refrigerants will inherently have increased repair and maintenance costs due to additional safety components in the equipment. (Carrier, No. 13 at p. 16) Goodman stated that repair and maintenance costs will be higher for products using alternative refrigerants. In addition, Goodman commented that DOE's modeling on repair and maintenance costs should be appropriately revised to account for the baseline technologies that will be required to meet the amended standards beginning on January 1, 2023. (Goodman, No. 17 at p. 4)

In response, DOE notes that the increased repair and maintenance costs presented in the January 2016 analysis for higher-efficiency products reflects the increased cost of more advanced components. Moreover, the Department has tentatively concluded that an update to the most current RS Means would not reduce the incremental difference in repair and maintenance costs by efficiency level, and, therefore, it would not be expected to change the outcome as compared to the January 2016 final rule.

Regarding energy prices, DOE received comments from Spire and APGA. Spire commented that the gas prices used in developing the January 2016 final rule for amended CWAF energy conservation standards were overstated and that gas prices have decreased since 2016. Spire also asserted that DOE did not properly measure the marginal gas rates when calculating the energy savings for CWAFs in the January 2016 final rule. (Spire, No. 21 at pp. 3–6) APGA commented that the natural gas supply has increased, allowing for stable or declining prices in some markets. APGA also stated that DOE should be utilizing marginal consumption-based prices, as they more accurately determine the impact of efficiency savings for an end-user. (APGA, No. 19 at p. 2)

In response, DOE notes that the majority of CWAFs use natural gas. The Department uses the *Annual Energy Outlook* ("*AEO*") to project future natural gas prices. In the January 2016 final rule, DOE used the natural gas price projections from *AEO 2015*.[20] The most current *AEO* is *AEO 2021,*[21] and the natural gas price projections of *AEO 2021* are indeed lower than for *AEO 2015*, in real dollars. With similar CWAF products and lower natural gas price projections, DOE does not expect the annual energy costs to rise compared to the January 2016 final rule.

Regarding the no-new-standards efficiency distribution and future efficiency trends, DOE received comments from Carrier and Trane. Carrier commented that it expects most shipments in 2023 to be near the standards level. (Carrier, No. 13 at p. 15) Trane asserted that the majority of shipments (60–80 percent) will be at the minimum standard level in 2023. (Trane, No. 16 at p. 10) Carrier and Trane further commented that they expect the efficiency trends to remain close to the Federal standard level after 2023. (Carrier, No. 13 at p. 17; Trane, No. 16 at p. 11)

Regarding historical shipments, Carrier, Goodman, and Trane commented that historical shipments would not accurately portray the market for CWAFs, as the impacts of COVID-19 on the heating, ventilation, and air-conditioning ("HVAC") industry are not yet known. (Carrier, No. 13 at p. 16; Goodman, No. 17 at p. 4; Trane, No. 16 at p. 11) Goodman argued that the CWAF market and shipments will be negatively impacted by future electrification trends and regulations. (Goodman, No. 17 at p. 4)

In response, DOE did not receive any historical shipments data in response to the May 2020 RFI. However, the CWAF market is mature, and in the January 2016 final

[20] Available at: *https://www.eia.gov/outlooks/aeo/tables_side.php.*
[21] Available at: *https://www.eia.gov/outlooks/archive/aeo21/.*

rule, shipments were projected to grow approximately 1 percent per year, with the large majority of shipments going to the replacement market.[22] The no-new-standards distribution projected that in 2023, nearly all shipments would be at or near the baseline level analyzed in the January 2016 final rule.[23] As to comments on impacts related to the COVID-19 pandemic, it is too soon to tell what long-term effects that event may have on CWAF shipment trends, if any. Likewise, DOE cannot adequately account for future statutory or regulatory efforts to promote electrification until they are finalized. At this point, DOE finds these factors to be too speculative to account for in the present analysis for CWAFs. Accordingly, given the mature market, the expectation that most shipments will be at the baseline level in 2023, and no anticipated increase in equipment lifetime, DOE does not expect the shipments estimates and no-new-standards distributions from the January 2016 final rule to change significantly for CWAFs.

DOE also received comments from Policy Integrity regarding the social cost of carbon used in the emissions monetization analysis. Policy Integrity urged DOE to account for the benefits of greenhouse gas emissions reductions from the use of higher-efficiency equipment using the global estimate of the social cost of greenhouse gases, and the commenter added that the values developed by the interagency working group for the social cost of greenhouse gases are the best available. (Policy Integrity, No. 7, at pp. 2-3, 5)

On March 16, 2022, the Fifth Circuit Court of Appeals (No. 22-30087) granted the Federal government's emergency motion for a stay pending appeal of the February 11, 2022, preliminary injunction in *Louisiana v. Biden*, No. 21-cv-1074-JDC-KK (W.D.

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[22] The January 15, 2016 direct final rule relied on the December 14, 2015 National Impact Analysis Spreadsheet (Available at: *www.regulations.gov/document/EERE-2013-BT-STD-0021-0052*).
[23] *Id.*

La.). As a result of the Fifth Circuit's order, the preliminary injunction is no longer in effect, pending resolution of the Federal government's appeal of that injunction or a further court order. Among other things, the preliminary injunction enjoined the defendants in that case from "adopting, employing, treating as binding, or relying upon" the interim estimates of the social cost of greenhouse gases—which were issued by the Interagency Working Group on the Social Cost of Greenhouse Gases on February 26, 2021—to monetize the benefits of reducing greenhouse gas emissions. In the absence of further intervening court orders, DOE will revert to its approach prior to the injunction and present monetized benefits where appropriate and permissible under law. However, in this NOPD, the Department will not be monetizing the cost of greenhouse gas emissions, as DOE is not proposing any amended standards. Should DOE follow this NOPD with a final determination that amended standards for CWAFs would not meet the applicable statutory criteria, no change in greenhouse gas emissions would be expected to result from this proceeding.

Finally, DOE received a comment from Lennox asserting that DOE lacks clear and convincing evidence to support a finding that implementing amended standards above the levels scheduled for compliance in 2023 would be economically justified. (Lennox, No. 15 at p. 8)

DOE considered the comments provided on the economic and energy use analyses and reviewed the inputs used in the life-cycle-cost, shipments, and national impact analysis from the January 2016 final rule. As discussed above, DOE has tentatively determined that there have not been any significant changes to the mark-ups and distribution channels, energy use, equipment lifetimes, repair and maintenance costs, energy prices, the no-new-standards efficiency distributions, and shipments that would

lead to higher life-cycle-cost savings, increased national energy savings, and increased net present value of consumer benefits from the analysis that was conducted for the January 2016 final rule. Therefore, as discussed in section III.F of this document, DOE has tentatively determined that the analyses conducted for the January 2016 final rule are appropriate for the present determination.

F. Proposed Determination

After carefully considering the comments on the May 2020 RFI and the available data and information, DOE has tentatively determined that the energy conservation standards for CWAFs do not need to be amended, for the reasons explained in the paragraphs immediately following. DOE will consider all comments received on this proposed determination prior to issuing the next document in this rulemaking proceeding.

As previously discussed, EPCA specifies that for any commercial and industrial equipment addressed under 42 U.S.C. 6313(a)(6)(A)(i), including CWAFs, DOE may prescribe an energy conservation standard more stringent than the level for such equipment in ASHRAE Standard 90.1 only if "clear and convincing evidence" shows that a more-stringent standard would result in significant additional conservation of energy and is technologically feasible and economically justified. (42 U.S.C. 6313(a)(6)(C)(i); 42 U.S.C. 6313(a)(6)(A)(ii)(II)) The "clear and convincing" evidentiary threshold applies both when DOE is triggered by ASHRAE action and when DOE conducts a six-year-lookback rulemaking, with the latter being the basis for the current proceeding. DOE addresses each of these statutory criteria in turn.

1. Significant Conservation of Energy

EPCA mandates that DOE consider whether amended energy conservation standards for CWAFs would result in result in significant additional conservation of energy. (42 U.S.C. 6313(a)(6)(C)(i); 42 U.S.C. 6313(a)(6)(A)(ii)(II))

DOE acknowledges that more-stringent standards for CWAFs have the potential to result in significant additional conservation of energy. In the January 2016 final rule, DOE estimated that establishing a condensing standard (*i.e.*, 92-percent thermal efficiency) for gas-fired and oil-fired CWAFs would result in 2.1 quads of primary energy savings compared to a no-new-standards case over the lifetime of the CWAF (2019 through 2048). 81 FR 2420, 2508 (Jan. 15, 2016). However, as discussed in section III.F.3 of this document, DOE has preliminarily determined that it lacks clear and convincing evidence to show that the potential amended standard levels considered would be economically justified.

2. Technological Feasibility

EPCA mandates that DOE consider whether amended energy conservation standards for CWAFs would be technologically feasible. (42 U.S.C. 6313(a)(6)(C)(i); 42 U.S.C. 6313(a)(6)(A)(ii)(II)) As previously discussed, establishing more-stringent standards for CWAFs would likely require condensing operation,[24] and DOE previously analyzed levels requiring condensing operation (*i.e.*, 92-percent thermal efficiency) for the January 2016 final rule. 81 FR 2420 (Jan. 15, 2016). In the analysis for the January 2016 final rule, DOE identified a small number of condensing gas-fired CWAF models

[24] Although DOE analyzed 82-percent thermal efficiency for gas-fired CWAFs in the January 2016 final rule, currently there are no non-condensing models available on the market with an efficiency exceeding the minimum standard of 81 percent. In addition, discussion during the negotiations that led to the January 2016 final rule indicated that it is not clear that CWAFs operating at 82-percent efficiency are always non-condensing.

(four models at 90-percent thermal efficiency and four models at 92-percent thermal efficiency) and one condensing oil-fired CWAF model,[25] indicating that the market for condensing CWAFs is still very small, and DOE's subsequent review suggests that it is now potentially smaller than it was at the time of the analysis for the January 2016 final rule. Although there is some uncertainty in how the market will respond once compliance is required with the 2023 energy conservation standards, DOE does not expect that the upcoming standards would spur significant development of condensing CWAFs, as there are certain technological and implementational challenges associated with use of condensing CWAFs, including condensate disposal and freezing in many commercial buildings/applications. In addition, DOE notes that the amended standards in the January 2016 final rule implemented a 1-percent increase in standard level for both gas-fired and oil-fired CWAFs, which can be achieved without use of condensing technology, and are levels at which models currently exist using non-condensing technology. However, DOE is not aware of any models on the market currently with an efficiency above the amended standards from the January 2016 final rule and that are non-condensing. Additionally, there are currently no condensing CWAFs certified to DOE through the compliance certification management system at this time.[26]

3. Economic Justification

In the January 2016 final rule, DOE concluded that energy conservation standards at levels requiring condensing operation would not be economically justified, due to the economic burden on most consumers, the negative NPV of consumer benefits using a 7-percent discount rate, and the impacts on manufacturers, including the conversion costs and profit margin impacts that could result in a large reduction in INPV. *Id.* at 81 FR

[25] See Chapter 3 of the Technical Support Document for the January 2016 final rule (Available at: *https://www.regulations.gov/document/EERE-2013-BT-STD-0021-0050*).
[26] *See* DOE's Compliance Certification Database for CWAFs (Available at: *www.regulations.doe.gov/ccms*) (Last accessed Jan. 12, 2022).

2522 (Jan. 15, 2016). In examining the current market, DOE has found that market conditions are largely the same as at the time of the January 2016 final rule.

Given the similar market size, DOE has tentatively determined that the manufacturing costs and manufacturer impacts would not be significantly different now than projected in the January 2016 final rule. In addition, DOE has tentatively determined that installation costs, which for condensing levels included costs for condensate removal, would be similar to those estimated in the previous analysis, and that energy cost savings would not increase as compared to the previous analysis, as updated *AEO* projections of energy prices show declining prices. For these reasons, DOE has tentatively determined that any analysis of a condensing level for CWAFs would not result in a significantly different economic outcome from the January 2016 final rule, and that as such, it lacks clear and convincing evidence that more- stringent standard levels for CWAFs would be economically justified.

DOE notes that the tentative determination, that it lacks clear and convincing evidence, is specific to this rulemaking. DOE will evaluate its ability to reach clear and convincing evidence on a case-by-case basis.

DOE requests comment on its proposed determination that the existing energy conservation standards for CWAFs do not need to be amended.

IV. Procedural Issues and Regulatory Review

A. Review Under Executive Order 12866 and 13563

Executive Order ("E.O.") 12866, "Regulatory Planning and Review," 58 FR 51735 (Oct. 4, 1993), as supplemented and reaffirmed by E.O. 13563, "Improving

Regulation and Regulatory Review," 76 FR 3821 (Jan. 21, 2011), requires agencies, to the extent permitted by law, to: (1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public. DOE emphasizes as well that E.O. 13563 requires agencies to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible. In its guidance, the Office of Information and Regulatory Affairs ("OIRA") in the Office of Management and Budget ("OMB") has emphasized that such techniques may include identifying changing future compliance costs that might result from technological innovation or anticipated behavioral changes. For the reasons stated in the preamble, this proposed regulatory action is consistent with these principles.

OMB has determined that this proposed determination does not constitute a "significant regulatory action" under section 3(f) of E.O. 12866. Accordingly, this action was not subject to review under E.O. 12866 by OIRA at OMB.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of an initial regulatory flexibility analysis ("IRFA") for any rule that by law must be proposed for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by E.O. 13272, "Proper Consideration of Small Entities in Agency Rulemaking," 67 FR 53461 (August 16, 2002), DOE published procedures and policies on February 19, 2003, to ensure that the potential impacts of its rules on small entities are properly considered during the rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General Counsel's website (*energy.gov/gc/office-general-counsel*).

The Small Business Administration (SBA) considers a business entity to be a small business, if, together with its affiliates, it employs less than a threshold number of workers specified in 13 CFR Part 121. The equipment covered by this rule are classified under North American Industry Classification System ("NAICS") code 333415,[27] "Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing." In 13 CFR 121.201, the SBA sets a threshold of 1,250 employees or fewer for an entity to be considered as a small business for this category.

DOE has conducted a focused inquiry into small business manufacturers of the equipment covered by this rulemaking. The Department used available public information to identify potential small manufacturers. DOE accessed its Compliance

[27] The size standards are listed by NAICS code and industry description and are available at: *www.sba.gov/document/support--table-size-standards* (Last accessed March 4, 2022).

Certification Database ("CCD")[28] to identify a list of companies that manufacture the CWAFs covered by this proposal. Using these sources, DOE identified a total of eight distinct manufacturers of CWAFs. DOE screened out companies that do not meet the definition of a "small business" or are foreign-owned and operated. Of these manufacturers, DOE identified one small, domestic manufacturer as a potential small business.

DOE reviewed this proposed determination under the provisions of the Regulatory Flexibility Act and the policies and procedures published on February 19, 2003. Because DOE is not proposing to amend standards for CWAFs, the determination, if adopted, would not amend any energy conservation standards. On the basis of the foregoing, DOE certifies that the proposed determination, if adopted, would not have a significant economic impact on a substantial number of small entities. Accordingly, DOE has not prepared an IRFA for this proposed determination. DOE will transmit this certification and supporting statement of factual basis to the Chief Counsel for Advocacy of the Small Business Administration for review under 5 U.S.C. 605(b).

C. Review Under the Paperwork Reduction Act of 1995

This proposed determination, which proposes to determine that amended energy conservation standards for CWAFs are unneeded under the applicable statutory criteria, would impose no new informational or recordkeeping requirements. Accordingly, OMB clearance is not required under the Paperwork Reduction Act. (44 U.S.C. 3501 *et seq.*)

[28] U.S. Department of Energy Compliance Certification Management System (Available at: *www.regulations.doe.gov/ccms*).

D. Review Under the National Environmental Policy Act of 1969

DOE is analyzing this proposed action in accordance with the National Environmental Policy Act of 1969 ("NEPA") and DOE's NEPA implementing regulations (10 CFR part 1021). DOE's regulations include a categorical exclusion for actions which are interpretations or rulings with respect to existing regulations. 10 CFR part 1021, subpart D, appendix A4. DOE anticipates that this action qualifies for categorical exclusion A4 because it is an interpretation or ruling in regard to an existing regulation and otherwise meets the requirements for application of a categorical exclusion. *See* 10 CFR 1021.410. DOE will complete its NEPA review before issuing the final action.

E. Review Under Executive Order 13132

E.O. 13132, "Federalism," 64 FR 43255 (August 10, 1999), imposes certain requirements on Federal agencies formulating and implementing policies or regulations that preempt State law or that have Federalism implications. The Executive order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have Federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations. 65 FR 13735. DOE has examined this proposed determination and has tentatively determined that it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. EPCA governs and prescribes Federal preemption of State

regulations as to energy conservation for the equipment that is the subject of this proposed determination. States can petition DOE for exemption from such preemption to the extent, and based on criteria, set forth in EPCA. (42 U.S.C. 6316(a) and (b); 42 U.S.C. 6297) As this proposed determination would not amend the standards for CWAFs, there is no impact on the policymaking discretion of the States. Therefore, no further action is required by E.O. 13132.

F. Review Under Executive Order 12988

With respect to the review of existing regulations and the promulgation of new regulations, section 3(a) of E.O. 12988, "Civil Justice Reform," imposes on Federal agencies the general duty to adhere to the following requirements: (1) eliminate drafting errors and ambiguity; (2) write regulations to minimize litigation; (3) provide a clear legal standard for affected conduct rather than a general standard, and (4) promote simplification and burden reduction. 61 FR 4729 (Feb. 7, 1996). Regarding the review required by section 3(a), section 3(b) of E.O. 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) clearly specifies the preemptive effect, if any; (2) clearly specifies any effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction; (4) specifies the retroactive effect, if any; (5) adequately defines key terms, and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988 requires Executive agencies to review regulations in light of applicable standards in section 3(a) and section 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, this proposed determination meets the relevant standards of E.O. 12988.

G. Review Under the Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 ("UMRA") requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. Pub. L. 104-4, sec. 201 (codified at 2 U.S.C. 1531). For a proposed regulatory action likely to result in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of $100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a), (b)) The UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed "significant intergovernmental mandate," and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirements that might significantly or uniquely affect them. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA. 62 FR 12820. DOE's policy statement is also available at *energy.gov/sites/prod/files/gcprod/documents/umra_97.pdf*.

DOE examined this proposed determination according to UMRA and its statement of policy and determined that the proposed determination does not contain a Federal intergovernmental mandate, nor is it expected to require expenditures of $100 million or more in any one year by State, local, and Tribal governments, in the aggregate, or by the private sector. As a result, the analytical requirements of UMRA do not apply.

H. Review Under the Treasury and General Government Appropriations Act, 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105-277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. This proposed determination would not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

I. Review Under Executive Order 12630

Pursuant to E.O. 12630, "Governmental Actions and Interference with Constitutionally Protected Property Rights," 53 FR 8859 (March 15, 1988), DOE has determined that this proposed determination would not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

J. Review Under the Treasury and General Government Appropriations Act, 2001

Section 515 of the Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516 note) provides for Federal agencies to review most disseminations of information to the public under information quality guidelines established by each agency pursuant to general guidelines issued by OMB. OMB's guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE's guidelines were published at 67 FR 62446 (Oct. 7, 2002). Pursuant to OMB Memorandum M-19-15, "Improving Implementation of the Information Quality Act" (April 24, 2019), DOE published updated guidelines which are available at: *www.energy.gov/sites/prod/files/2019/12/f70/DOE%20Final%20Updated%20IAQ%20Guidelines%20Dec%202019.pdf*. DOE has reviewed this NOPD under the OMB and DOE

guidelines and has concluded that it is consistent with applicable policies in those guidelines.

K. Review Under Executive Order 13211

E.O. 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use," 66 FR 28355 (May 22, 2001), requires Federal agencies to prepare and submit to the OIRA at OMB, a Statement of Energy Effects for any proposed significant energy action. A "significant energy action" is defined as any action by an agency that promulgates or is expected to lead to promulgation of a final rule, and that: (1) is a significant regulatory action under Executive Order 12866, or any successor Executive Order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy, or (3) is designated by the Administrator of OIRA as a significant energy action. For any proposed significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use should the proposal be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

This proposed determination, which does not propose to amend energy conservation standards for CWAFs, is not a significant regulatory action under Executive Order 12866. Moreover, it would not have a significant adverse effect on the supply, distribution, or use of energy, nor has it been designated as such by the Administrator at OIRA. Therefore, it is not a significant energy action, and accordingly, DOE has not prepared a Statement of Energy Effects.

L. Review Under the Information Quality Bulletin for Peer Review

On December 16, 2004, OMB, in consultation with the Office of Science and Technology Policy ("OSTP"), issued its Final Information Quality Bulletin for Peer Review ("the Bulletin"). 70 FR 2664 (Jan. 14, 2005). The Bulletin establishes that certain scientific information shall be peer reviewed by qualified specialists before it is disseminated by the Federal Government, including influential scientific information related to agency regulatory actions. The purpose of the bulletin is to enhance the quality and credibility of the Government's scientific information. Under the Bulletin, the energy conservation standards rulemaking analyses are "influential scientific information," which the Bulletin defines as "scientific information the agency reasonably can determine will have, or does have, a clear and substantial impact on important public policies or private sector decisions." *Id.* at 70 FR 2667.

In response to OMB's Bulletin, DOE conducted formal peer reviews of the energy conservation standards development process and the analyses that are typically used and has prepared Peer Review report pertaining to the energy conservation standards rulemaking analyses.[29] Generation of this report involved a rigorous, formal, and documented evaluation using objective criteria and qualified and independent reviewers to make a judgment as to the technical/scientific/business merit, the actual or anticipated results, and the productivity and management effectiveness of programs and/or projects. Because available data, models, and technological understanding have changed since 2007, DOE has engaged with the National Academy of Sciences (NAS) to review DOE's analytical methodologies to ascertain whether modifications are needed to improve the

[29] "Energy Conservation Standards Rulemaking Peer Review Report." 2007 (Available at: *energy.gov/eere/buildings/downloads/energy-conservation-standards-rulemaking-peer-review-report-0*).

Department's analyses. DOE is in the process of evaluating the resulting December 2021 NAS report.[30]

V. Public Participation

A. Participation in the Public Meeting Webinar

The time and date of the webinar are listed in the **DATES** section at the beginning of this document. Webinar registration information, participant instructions, and information about the capabilities available to webinar participants will be published on DOE's website: *www1.eere.energy.gov/buildings/appliance_standards/standards.aspx?productid=49*. Participants are responsible for ensuring their systems are compatible with the webinar software.

B. Procedure for Submitting Prepared General Statements for Distribution

Any person who has an interest in the topics addressed in this NOPD, or who is representative of a group or class of persons that has an interest in these issues, may request an opportunity to make an oral presentation at the webinar. Such persons may submit requests to speak by email to the Appliance and Equipment Standards Program, *ApplianceStandardsQuestions@ee.doe.gov*. Persons who wish to speak should include with their request a computer file in Microsoft Word, PDF, or text (ASCII) file format that briefly describes the nature of their interest in this proposed determination and the topics they wish to discuss. Such persons should also provide a daytime telephone number where they can be reached.

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[30] The December 2021 NAS report is available at *www.nationalacademies.org/our-work/review-of-methods-for-setting-building-and-equipment-performance-standards*.

DOE requests persons selected to make an oral presentation to submit an advance copy of their statements at least two weeks before the webinar. At its discretion, DOE may permit persons who cannot supply an advance copy of their statement to participate, if those persons have made advance alternative arrangements with the Building Technologies Office. As necessary, requests to give an oral presentation should ask for such alternative arrangements.

C. Conduct of the Public Meeting Webinar

DOE will designate a DOE official to preside at the webinar and may also use a professional facilitator to aid discussion. The meeting will not be a judicial or evidentiary-type public hearing, but DOE will conduct it in accordance with section 336 of EPCA (42 U.S.C. 6306). A court reporter will be present to record the proceedings and prepare a transcript. DOE reserves the right to schedule the order of presentations and to establish the procedures governing the conduct of the webinar. There shall not be discussion of proprietary information, costs or prices, market share, or other commercial matters regulated by U.S. anti-trust laws. After the webinar and until the end of the comment period, interested parties may submit further comments on the proceedings and any aspect of the proposed determination.

The webinar will be conducted in an informal, conference style. DOE will present a summary of the proposed determination, allow time for prepared general statements by participants, and encourage all interested parties to share their views on issues affecting this proposed determination. Each participant will be allowed to make a general statement (within time limits determined by DOE), before the discussion of specific topics. DOE will allow, as time permits, other participants to comment briefly on any general statements.

At the end of all prepared statements on a topic, DOE will permit participants to clarify their statements briefly and comment on statements made by others. Participants should be prepared to answer questions by DOE and by other participants concerning these issues. DOE representatives may also ask questions of participants concerning other matters relevant to this proposed determination. The official conducting the webinar meeting will accept additional comments or questions from those attending, as time permits. The presiding official will announce any further procedural rules or modification of the above procedures that may be needed for the proper conduct of the webinar.

A transcript of the public meeting webinar will be included in the docket, which can be viewed as described in the *Docket* section at the beginning of this NOPD. In addition, any person may buy a copy of the transcript from the transcribing reporter.

D. Submission of Comments

DOE will accept comments, data, and information regarding this proposed determination no later than the date provided in the **DATES** section at the beginning of this proposed determination. Interested parties may submit comments, data, and other information using any of the methods described in the **ADDRESSES** section at the beginning of this document.

Submitting comments via www.regulations.gov. The *www.regulations.gov* webpage will require you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies staff only. Your contact information will not be publicly viewable except for your first and last names,

organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment itself or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached to your comment. Otherwise, persons viewing comments will see only first and last names, organization names, correspondence containing comments, and any documents submitted with the comments.

Do not submit to *www.regulations.gov* information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (hereinafter referred to as Confidential Business Information ("CBI")). Comments submitted through *www.regulations.gov* cannot be claimed as CBI. Comments received through the website will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through *www.regulations.gov* before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your comment may not be viewable for up to several weeks. Please keep the comment tracking number that *www.regulations.gov* provides after you have successfully uploaded your comment.

Submitting comments via email. Comments and documents submitted via email also will be posted to *www.regulations.gov*. If you do not want your personal contact

information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information in a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. With this instruction followed, the cover letter will not be publicly viewable as long as it does not include any comments

Include contact information each time you submit comments, data, documents, and other information to DOE. No telefacsimiles (faxes) will be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, or text (ASCII) file format. Provide documents that are not secured, that are written in English, and that are free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email two well-marked copies: one copy of the document marked "confidential" including all the information believed to be confidential, and one copy of the document marked "non-confidential" with the information believed to be confidential deleted. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

VI. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this notification of proposed determination and request for comment.

Signing Authority

This document of the Department of Energy was signed on April 20, 2022, by Kelly J. Speakes-Backman, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, DC, on April 21, 2022

Treena V. Garrett
Federal Register Liaison Officer,
U.S. Department of Energy

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